Figure 1

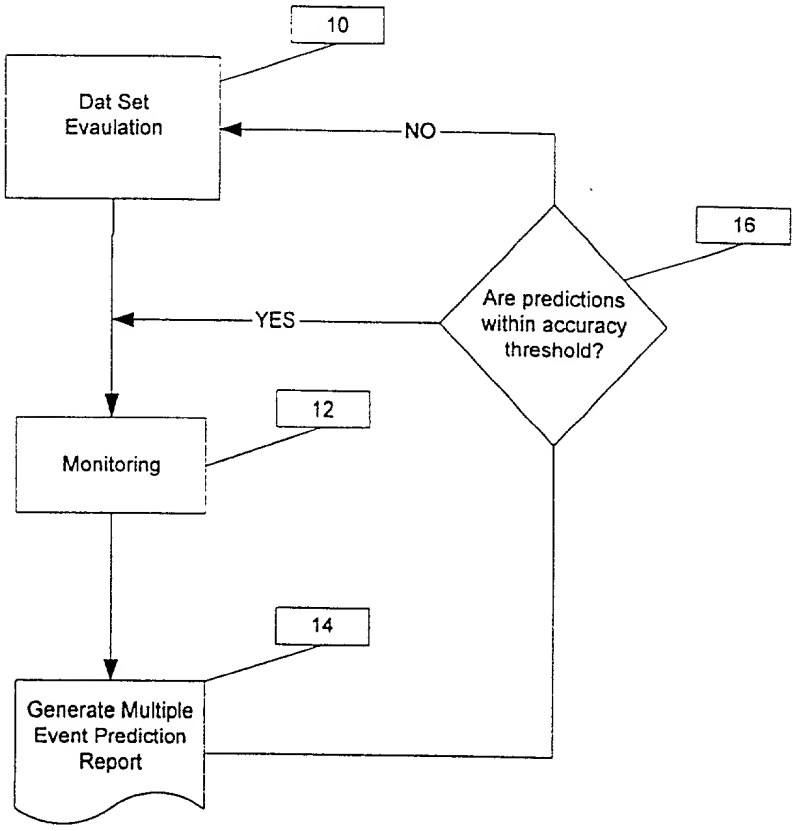

10
Dat Set Evaulation
NO
16
Are predictions within accuracy threshold?
YES
12
Monitoring
14
Generate Multiple Event Prediction Report

Figure 2
Data Set Evaluation

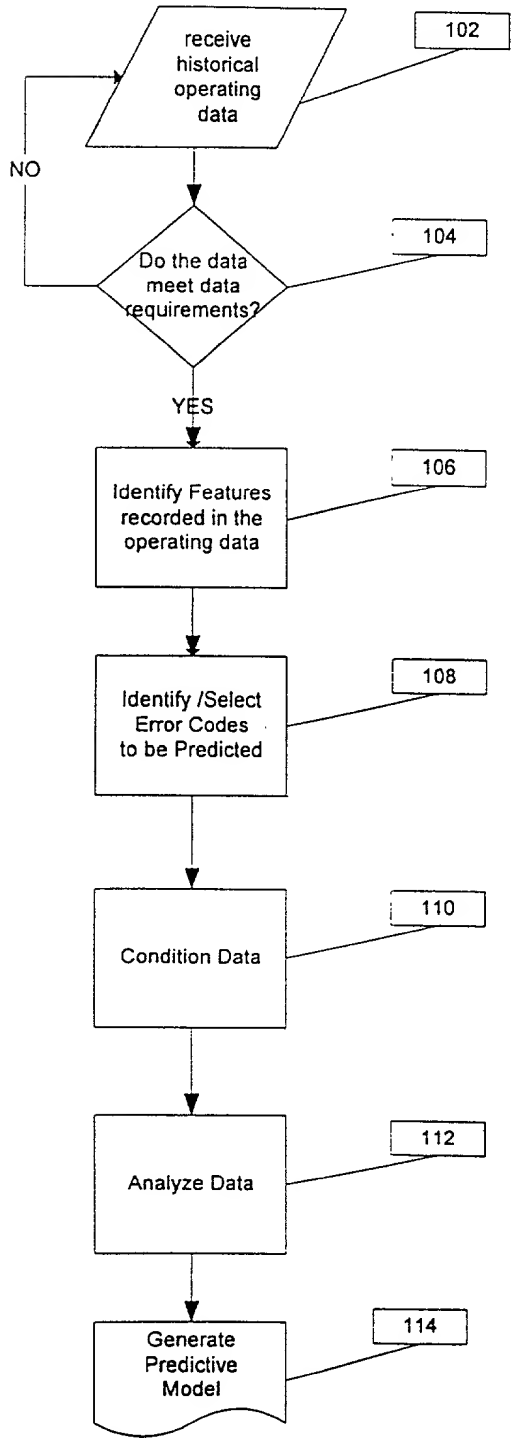
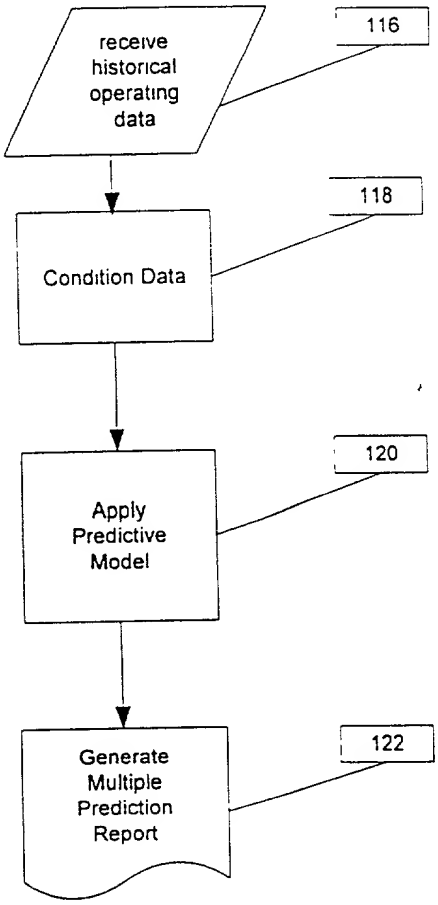
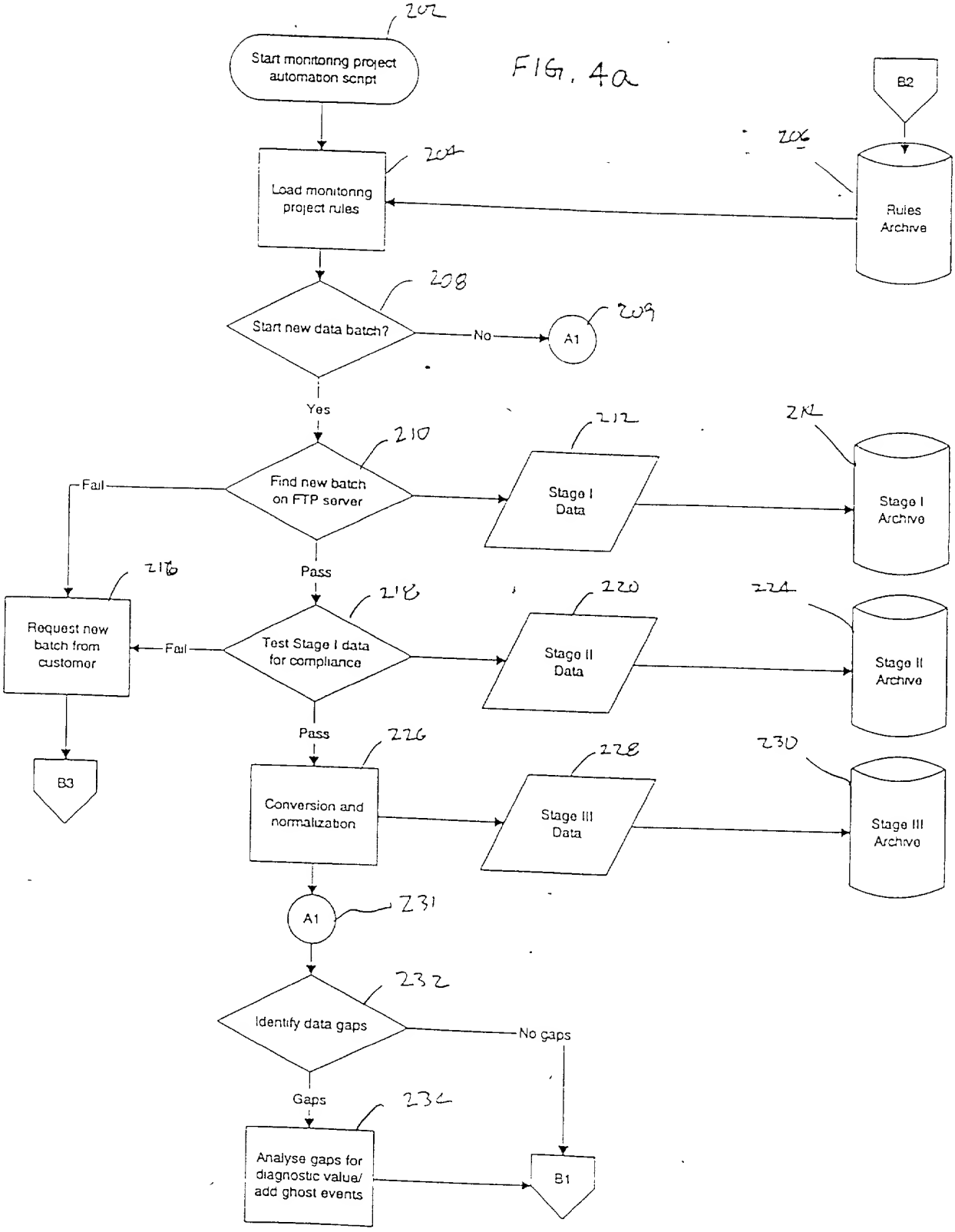


Figure 3
Monitoring




202
Start monitoring project automation script
FIG. 4a
B2
206
204
Load monitoring project rules
Rules Archive
208
Start new data batch?
No
A1
209
Yes
210
Find new batch on FTP server
212
Stage I Data
214
Stage I Archive
Fail
Pass
216
Request new batch from customer
218
Test Stage I data for compliance
220
Stage II Data
224
Stage II Archive
Fail
Pass
B3
226
Conversion and normalization
228
Stage III Data
230
Stage III Archive
A1
231
232
Identify data gaps
No gaps
Gaps
234
Analyse gaps for diagnostic value/ add ghost events
B1

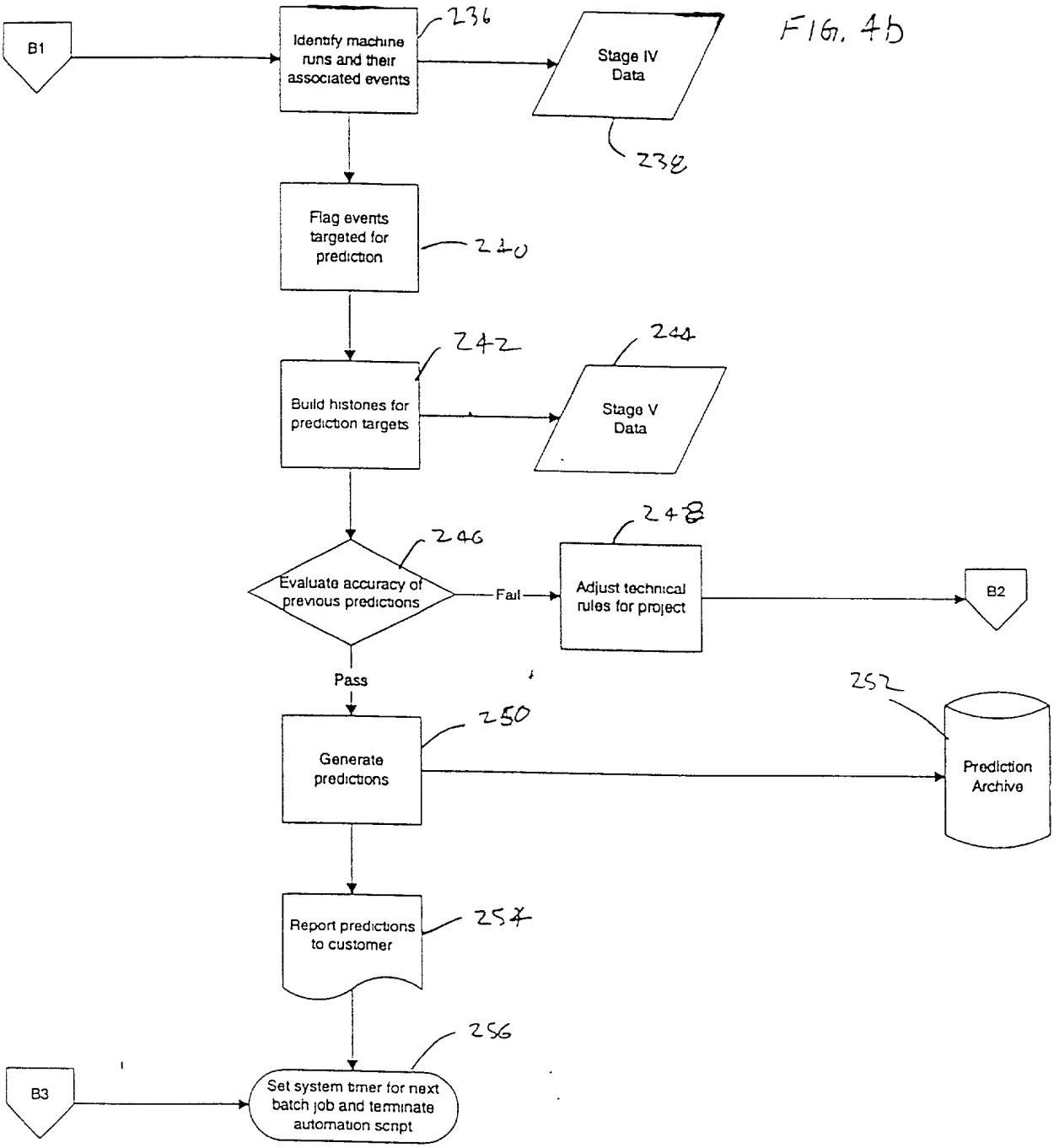

B1
Identify machine runs and their associated events
236
Stage IV Data
238
Flag events targeted for prediction
240
Build histones for prediction targets
242
Stage V Data
244
Evaluate accuracy of previous predictions
246
Fail
Adjust technical rules for project
248
B2
Pass
Generate predictions
250
Prediction Archive
252
Report predictions to customer
254
B3
Set system timer for next batch job and terminate automation script
256

FIG. 4b

FIG. 5

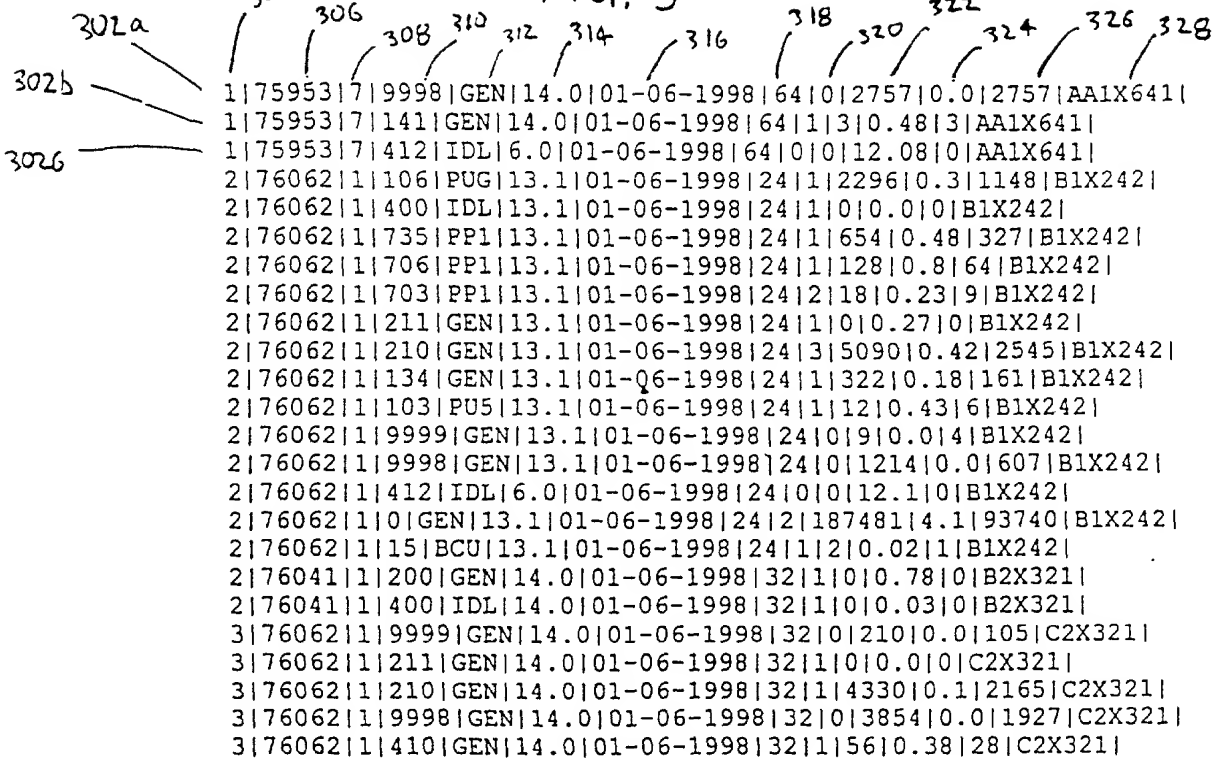



FIG. 6

| MACHID | DATE | ERROR |
|---|---|---|
| 1 | 06-01-1998 | 1.00 |
| 2 | 06-01-1998 | 1.00 |
| 3 | 06-01-1998 | 1.00 |
| 4 | 06-01-1998 | 1.00 |
| 5 | 06-01-1998 | 1.00 |
| 6 | 06-01-1998 | 1.00 |
| 1 | 06-01-1998 | 1.00 |
| 1 | 06-01-1998 | 1.00 |
| 2 | 06-01-1998 | 1.00 |
| 3 | 06-01-1998 | 1.00 |
| 3 | 06-01-1998 | 1.00 |
| 4 | 06-01-1998 | 1.00 |
| 4 | 06-01-1998 | 1.00 |
| 5 | 06-01-1998 | 1.00 |
| 5 | 06-01-1998 | 1.00 |
| 6 | 06-01-1998 | 1.00 |
| 6 | 06-01-1998 | 1.00 |
| 1 | 06-02-1998 | 1.00 |
| 1 | 06-02-1998 | 1.00 |
| 2 | 06-02-1998 | 1.00 |
| 3 | 06-02-1998 | 1.00 |
| 4 | 06-02-1998 | 1.00 |
| 4 | 06-02-1998 | 1.00 |
| 5 | 06-02-1998 | 1.00 |
| 5 | 06-02-1998 | 1.00 |
| 6 | 06-02-1998 | 1.00 |
| 1 | 06-02-1998 | 1.00 |
| 1 | 06-02-1998 | 1.00 |

FIG. 7

| DATE | DATENB | MACHID | V1_1 | V2_1 | V3_1 | V4_1 | V5_1 | V6_1 | V7_1 | V8_1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 06-01-1998 | 35947 | 1 | 3.00 | .00 | 1.00 | .00 | .00 | 1.00 | .00 | .00 |
| 06-02-1998 | 35948 | 1 | 5.00 | .00 | 1.00 | .00 | .00 | 3.00 | 1.00 | .00 |
| 06-03-1998 | 35949 | 1 | 4.00 | .00 | .00 | .00 | .00 | 2.00 | .00 | .00 |
| 06-04-1998 | 35950 | 1 | 5.00 | .00 | .00 | .00 | .00 | 2.00 | .00 | .00 |
| 06-05-1998 | 35951 | 1 | 6.00 | .00 | .00 | .00 | .00 | 2.00 | .00 | .00 |
| 06-06-1998 | 35952 | 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 06-07-1998 | 35953 | 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 06-08-1998 | 35954 | 1 | 2.00 | .00 | .00 | 1.00 | .00 | 2.00 | .00 | .00 |
| 06-09-1998 | 35955 | 1 | 5.00 | 1.00 | .00 | .00 | .00 | 2.00 | .00 | .00 |
| 06-10-1998 | 35956 | 1 | 5.00 | 4.00 | .00 | .00 | .00 | 2.00 | .00 | .00 |
| 06-11-1998 | 35957 | 1 | 4.00 | 2.00 | .00 | 1.00 | .00 | 3.00 | .00 | .00 |
| 06-12-1998 | 35958 | 1 | 5.00 | .00 | .00 | .00 | .00 | 5.00 | 1.00 | .00 |
| 06-13-1998 | 35959 | 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 06-14-1998 | 35960 | 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 06-15-1998 | 35961 | 1 | 3.00 | 1.00 | .00 | .00 | .00 | 2.00 | .00 | .00 |
| 06-16-1998 | 35962 | 1 | 5.00 | .00 | .00 | .00 | .00 | 3.00 | .00 | .00 |
| 06-17-1998 | 35963 | 1 | 6.00 | .00 | .00 | .00 | .00 | 4.00 | .00 | .00 |

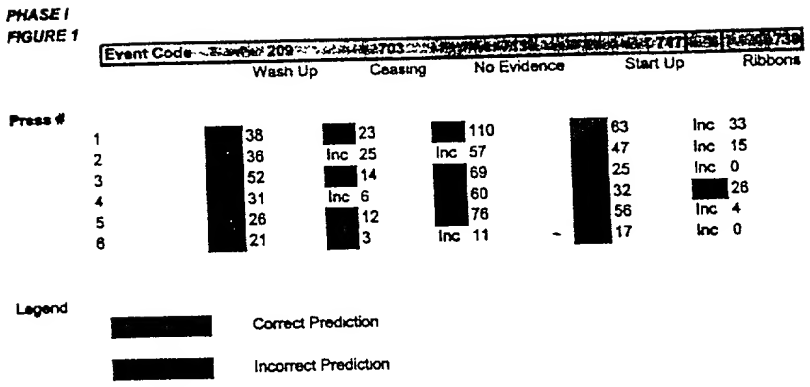



FIG. 8